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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,440	03/22/2001	Steven M. Bennett	5038-87	5232

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,440

Applicant(s)

BENNETT ET AL.

Examiner

Michael N. Opsasnick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-8,10-12,15,16,18-20,22,25,26 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-8,10-12,15,16,18-20,22,25,26,28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al (6415257) in view of Curry et al (6493669) in further view of Newman (5946654).

As per claims 29,30, Junqua et al (6415257) teaches a speech recognition system comprising:

- a) At least two speech models (Col 2, Line 60).
- b) A control module (Figure 1, See 10,12,14,24) operable to:
 - i. Determine context information about a call (Col 3, Line 8)
 - ii. Select one of at least two speech models as a selected default speech model based on the context information [grammar] (Col.3, Line 12).
 - iii. Configure a speech recognizer to use the selected model (Col.10, Line 55).
 - iv. Dynamically identifying whether a new speech model has the better fit to the initial information [*based on communication channel and/or user characteristics*] (Col 10, Line 55, Col 11, Lines 25 - 44, Col 12, Line 36 -66).
 - v. If so, associating the model having a best fit with the mapping target as a default model (Col 12, Line 1).

- c) A recognition engine operable to:
- i. Receive an input speech stream (Col 2, Line 36).
 - ii. Receive information about which speech model to use from the control module (Col 2, Line 46 - Line 60).
 - iii. Convert an input speech stream to an output text stream using the model (Col 5, Line 16).

As per claims 29, 30, Junqua et al (6415257) does not explicitly teach using a default speech model during speech processing, however, Curry et al (6493669) teaches the use of a default speech model during the recognition process (Curry et al (6493669), col. 2 lines 61-63). Therefore, it would have been obvious to one of ordinary skill in the art of speech recognition to modify the teachings Junqua et al (6415257) with defaulting to a speech model because it would advantageously offer speech recognition to an unidentified user (as opposed to not offering any speech recognition to an unidentified user, Curry et al (6493669), col. 2 lines 62-63).

As per claims 29,30, the combination of Junqua et al (6415257) in view of Curry et al (6493669) does not explicitly teach dynamically replacing the old speech model if the new speech model is a better fit, however, Newman (5946654) teaches evaluating all speech models and then dynamically (via scoring) determining which speech model best aligns with the input utterance, and choosing that particular speech model (col. 6 lines 49-56; col. 7 lines 10-29; col.

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59-64; col. 8 lines 20-30). Therefore, it would have been obvious to one of ordinary skill in the art of speech recognition to modify the teachings of Junqua et al (6415257) in view of Curry et al (6493669) with dynamically replacing the old speech model if the new speech model is a better fit because it would advantageously associate and use the contents of the input speech to a best fit model, and update the model as well, to improve recognition accuracy (Newman (5946654) col. 8 lines 30-40).

4. Claims 1, 2, 6 - 8, 11, 12, 15, 16, 18 - 20, 22, 25, 26 & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherwood (US 6212498) in view Sharma et al. (U.S. Patent 6480825) in further view of Curry et al (6493669) in further view of Newman (5946654).

Regarding claim 1, Sherwood discloses an enrollment method where a user utterance and determining the content of a user utterance and determining whether the utterance matches a portion of the enrollment text. Sherwood does not explicitly disclose determining initial information and mapping target, mapping the initial information to at least one model, identifying a model having a best fit to the initial information, associating the model having a best fit with the mapping target as a default model. However, Sharma et al. discloses a method for speaker recognition where the method comprises:

- a. Determining initial information associated with an input speech (Col 10, Line 25).
- b. Mapping the initial information to at least one model (Col 1, Line 38).
- c. Dynamically identifying whether a new speech model has the better fit to the initial information [based on communication channel and/or user characteristics] (Col 10, Line 55, Col 11, Lines 25 - 44, Col 12, Line 36 66).

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- d. If so, associating the model having a best fit with the mapping target as a default model (Col 12, Line 1).

The ability to choose the best model fit would have improved results in a speaker/speech recognition system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sherwood et al. to items a, b, c & d as taught by Sharma et al. since the ability to choose the best model fit would have improved results in a speaker/speech recognition system (Sharma (6480825), col. 5 lines 40-50).

The combination of Sherwood (US 6212498) in view Sharma et al. (U.S. Patent 6480825) does not explicitly teach using a default speech model during speech processing, however, Curry et al (6493669) teaches the use of a default speech model during the recognition process (Curry et al (6493669), col. 2 lines 61-63). Therefore, it would have been obvious to one of ordinary skill in the art of speech recognition to modify the teachings of Sherwood (US 6212498) in view Sharma et al. (U.S. Patent 6480825) with defaulting to a speech model because it would advantageously offer speech recognition to an unidentified user (as opposed to not offering any speech recognition to an unidentified user, Curry et al (6493669), col. 2 lines 62-63).

Furthermore, as per claim 1, the combination of Sherwood (US 6212498) in view Sharma et al. (U.S. Patent 6480825) in further view of Curry et al (6493669) does not explicitly teach dynamically replacing the old speech model if the new speech model is a better fit, however, Newman (5946654) teaches evaluating all speech models and then dynamically (via scoring) determining which speech model best aligns with the input utterance, and choosing that

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particular speech model (col. 6 lines 49-56; col. 7 lines 10-29; col. 59-64; col. 8 lines 20-30).

Therefore, it would have been obvious to one of ordinary skill in the art of speech recognition to modify the teachings of Sherwood (US 6212498) in view of Sharma et al. (U.S. Patent 6480825) in further view of Curry et al (6493669) with dynamically replacing the old speech model if the new speech model is a better fit because it would advantageously associate and use the contents of the input speech to a best fit model, and update the model as well, to improve recognition accuracy (Newman (5946654) col. 8 lines 30-40).

As per claim 2, Sherwood does not explicitly teach user and personal characteristics of the mapping target, however, Sharma et al. disclose a mapping target further comprises at least one of a user, personal characteristics of the user and communication channel characteristics (Sharma, Col 13, Line 60, Col 11, Lines 25 - 44, Col 12, Line 36 - 66)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sherwood et al reference to include mapping targets that included personal information because it would advantageously improve the accuracy of the recognition system (Sharma, col. 3 lines 35-45).

As per claims 6, 20 & 26, Sherwood does not explicitly teach types of communication channels, however, Sharma et al. disclose that the communication channel characteristics will comprise of at least one from the group comprised of: type of connection, model of phone, network identifiers, network characteristics and background noise level (Sharma, Col 13, Line 63). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

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invention to modify Sherwood et al reference to be used for specific applications because, for example, the system could be tailored for a home-detention system (Sharma, col. 13 lines 60-65).

As per claim 7, Sherwood does not explicitly teach mapping into alternate models, however, Sharma et al. disclose a method that further associates at least one alternative model with the mapping target from the mapped models. Sharma et al. describe that during the verification process, a password of the users are stored and verified against a stored version [mapping process]. In addition, the communication channel characteristics [alternative model] are also stored and verified against a version that was stored during enrollment and linked to the password data (Col 14, Line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sherwood et al reference for model adaptation because it would improve upon the accuracy of verification system (Sharma, col. 14, lines 30-40).

As per claims 8,11,12, 15, 16,18, 19, 22, 25 & 28, Sherwood disclose an enrollment method where a user utterance and determining the content of a user utterance and determining whether the utterance matches a portion of the enrollment text [automatic speech *recognition*]. Sherwood does not explicitly disclose determining initial information and mapping target, mapping the initial information to at least one model, identifying a model having a best fit to the initial information, associating the model having a best fit with the mapping target as a default model. However, Sharma et al. disclose a method for speaker recognition where the method comprises:

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- a. Receiving a call from a user and later identifying of user (Col 3, Lines 46 - Lines 65).
- b. Determining characteristics of a communication channel through which the call is received (Col 3, Lines 46 - Lines 65).
- c. Selecting a default speech model based upon the characteristics of the channel (Col 3, Lines 50 - Lines 64);
- d. Configuring a speech recognizer to use the default speech model;
- e. Dynamically identifying whether a new speech model has the better fit to the initial information [based on communication channel and/or user characteristics] (Col 10, Line 55, Col 11, Lines 25 - 44, Col 12, Line 36 - 66).
- f. If so, associating the model having a best fit with the mapping target a default model (Col 12, Line 1).

The ability to choose the best model fit would have improved results in a speaker/speech recognition system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sherwood et al. to items a, b, c, d, e & f as taught by Sharma et al. since the ability to choose the best model fit would have improved results in a speaker/speech recognition system (Sharma, col. 4 lines 40-50).

5. Claims 4 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

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Sherwood et al. (U.S. Patent 6212498) in view of Sharma et al. (U.S. Patent 6480825) in further view of Curry et al (6493669) in further view of Newman (5946654) as applied to claims 2 and 8 above, and further in view of Junqua et al.(U.S Patent 6415257).

As per claims 4 & 10, the combination of Sherwood et al. (U.S. Patent 6212498) in view of Sharma et al. (U.S. Patent 6480825) in further view of Curry et al (6493669) in further view of Newman (5946654) do not disclose the personal characteristics that include gender, native language, age, ethnicity and home region. However, Junqua et al.(U.S Patent 6415257) teaches the use of identifying the age of certain users so that channels can be blocked (Col 3, Line 1). The identity of the user is necessary information can be selectively limited e.g. blocking a child's access to a television channel. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination Sherwood et al. (U.S. Patent 6212498) in view of Sharma et al. (U.S. Patent 6480825) in further view of Curry et al (6493669) in further view of Newman (5946654) to include the age, gender, etc. of the user as taught by Junqua et al. since it would have selectively limit/give access to users based on characteristics related to age, gender, etc. (Junqua et al.(U.S Patent 6415257), col. 3 lines 1-5).

Response to Arguments

6. Applicant's arguments filed 9/20/05 have been fully considered but they are not persuasive. As per applicant filed arguments, examiner notes that the bulk of the arguments pertain to the newly amended claim language relating to dynamically calculating and choosing a

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new speech model if it is a better fit for the input speech. This claim scope has been addressed above via the Newman (5946654) reference.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see related art listed on the PTO-892 form.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

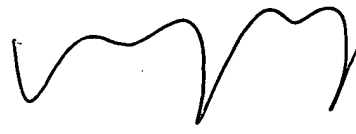
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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young, can be reached at (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno
11/16/05



W. R. YOUNG
PRIMARY EXAMINER